

CLAIMS

What is claimed is:

Sub A1 1. A method for classifying stocks into business sectors, said method comprising:

- (a) calculating, for each of plural exogenous variables, a measure of a tendency for a value of a stock to change as a result of a change in a data value for said each exogenous variable;
- (b) repeating step (a) for each of plural different stocks; and
- (c) grouping said plural different stocks into plural different sectors based on similarities of said measures of tendency to change.

2. A method according to Claim 1, wherein said measure of tendency to change comprises a measure of elasticity.

Sub A2 3. A method according to Claim 1, wherein step (a) comprises:

(a1) processing historical data for value of the stock and historical data values for said plural exogenous variables to obtain a price formula for estimating the value of the stock as a function of the exogenous variables; and

- (a2) taking a derivative of the price formula to obtain a formula expressing said tendency to change.

4. A method according to Claim 3, wherein step (a1) comprises performing a statistical regression technique.

5. A method according to Claim 3, wherein said price formula is expressed as a truncated Taylor series expansion.

6. A method according to Claim 1, wherein step (c) comprises performing a statistical clustering technique whereby said plural different sectors are defined by clusters resulting from said statistical clustering technique.

7. A method according to Claim 1, wherein step (c) comprises performing a statistical regression technique.

Sub A3 8. A method according to Claim 1, further comprising a step of calculating a representative characteristic of stocks in a specific sector used in step (c).

9. A method according to Claim 8, further comprising a step of comparing a characteristic of a specific stock in said specific sector to the representative characteristic of stocks in said specific sector.

10. A method according to Claim 9, further comprising a step of purchasing an asset based on a result of said step of comparing.

Sub A4 11. A method according to Claim 8, wherein said representative characteristic comprises an average return to stocks in said specific sector.

12. A method according to Claim 11, wherein said average return is calculated using a weighted average.

13. A method according to Claim 1, further comprising a step of periodically repeating steps (a) through (c).

Sub A5 14. A method according to Claim 13, further comprising a step of tracking a position of a particular stock over time relative to its assigned sector.

15. A method according to Claim 13, further comprising a step of tracking reclassification of a particular stock from a first sector to a second sector.

16. A method according to Claim 1, wherein step (a) comprises determining a formula for calculating said measure of tendency to change, said formula being a function of said exogenous variables.

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at 17. A method according to Claim 16, further comprising steps of:
calculating plural samples of said measure of tendency to change using said
formula for each of said plural different stocks; and
using said samples in step (c) for grouping said plural different stocks into said
5 plural different sectors.

18. A method according to Claim 17, wherein said measure of tendency
to change is calculated in step (a) for each of the plural different stocks using
historical data values for said exogenous variables over a same period of time.

19. A method according to Claim 18, wherein said samples are taken from
a region of a multi-dimensional space defined by said exogenous variables in which
the historical data values for said exogenous variables used in step (a) are clustered.

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at 20. A method according to Claim 1, step (a) comprises a step of processing
historical data for value of the stock and historical data values for said plural
exogenous variables to obtain a price formula for estimating the value of the stock
as a function of the exogenous variables.

21. A method according to Claim 20, wherein said price formula is obtained
by performing neural network processing.

22. A method according to Claim 21, wherein said measure of tendency
to change is calculated by inputting different data values for the exogenous variables
and observing how an output of said price formula changes as a result of small
changes in the data values for the exogenous variables.

23. A method according to Claim 20, wherein said price formula is obtained
by using a genetic algorithm.

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at 24. An apparatus for classifying stocks into business sectors, said
apparatus comprising:

(a) means for calculating, for each of plural exogenous variables, a measure of a tendency for a value of a stock to change as a result of a change in a data value
5 for said each exogenous variable;

(b) means for repeating the calculating performed by means (a) for each of plural different stocks; and

(c) means for grouping said plural different stocks into plural different sectors based on similarities of said measures of tendency to change.

25. A computer-readable medium storing computer-executable process steps for classifying stocks into business sectors, said process steps comprising steps to:

(a) calculate, for each of plural exogenous variables, a measure of a
5 tendency for a value of a stock to change as a result of a change in a data value for said each exogenous variable;

(b) repeat step (a) for each of plural different stocks; and

(c) group said plural different stocks into plural different sectors based on similarities of said measures of tendency to change.

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